

Standardization in Chemicals

- It's all about business -

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NIST SIMA Workshop
May 29, 2003

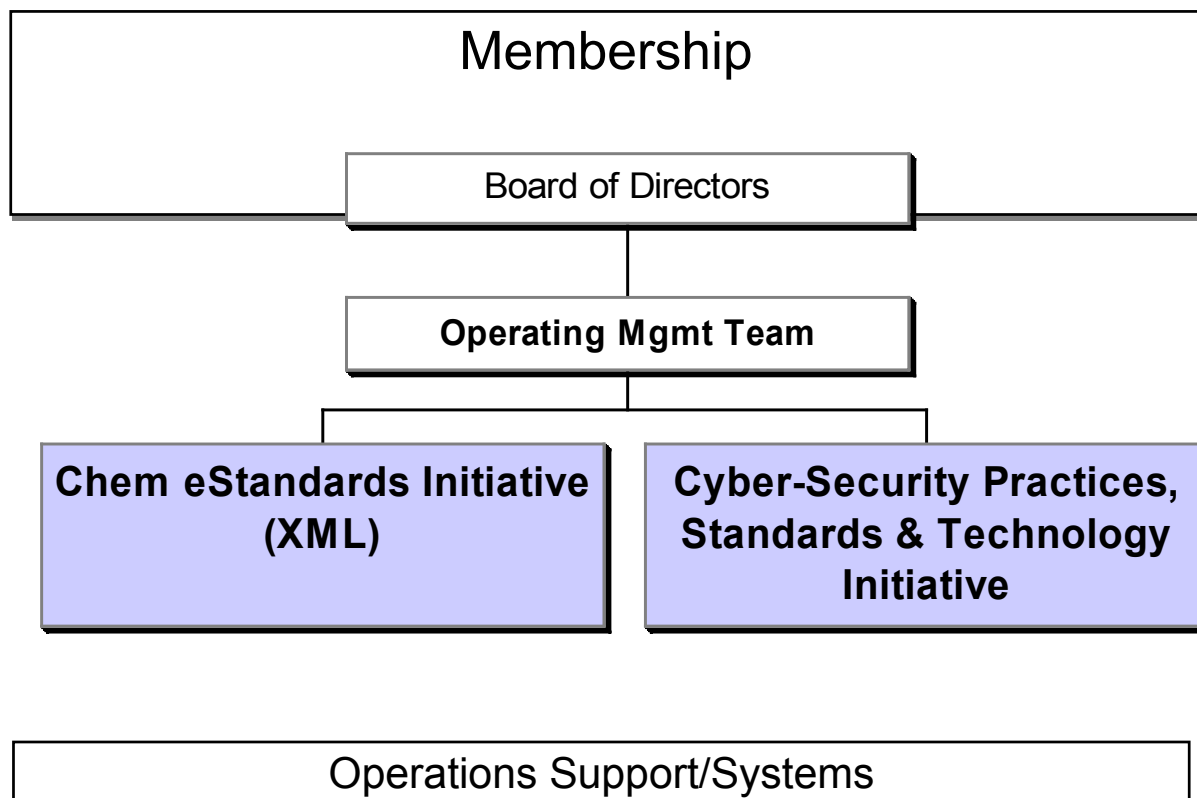
Welcome To CIDX™

CIDX History

- Organized in 1985 to facilitate EDI and bar coding implementations in the Chemical Industry.
- Evolved into guidelines organization for sharing information and learning new technologies.
- In 2001, CIDX was converted to be the XML standards body for the Chemical Industry
- Recently added Cybersecurity
-

What's next?

Evolving Scope of CIDX



Mission

To improve the ease, speed and cost of **transacting business electronically** between chemical companies and their trading partners.

Principles for XML Standards

- **Open**
- **Neutral**
- **Freely Available**

2003 CIDX Member Companies

Chemical Companies

- Air Products
- Albemarle
- Atofina
- Akzo Nobel
- BASF
- Bayer Corporation
- Borealis
- BP Chemicals
- Celanese (Ticona)
- Ciba Specialty Chemicals
- Clariant International
- DSM
- The Dow Chemical Co.
- Dow Corning
- DuPont
- Eastman Chemical Co.
- ExxonMobil Chemical
- FMC
- Kerr McGee
- Lubrizol
- Lyondell
- Millennium
- NOVA Chemicals
- Occidental Chemical Corp.
- Olin Chlor Alkali
- PPG
- Praxair
- Rhodia
- Rohm & Haas
- Shell
- Solutia
- Solvay
- Stepan
- Univar
- Vulcan
- JCPA CEDI (Mitsui, Mitsubishi, Sumitomo, Ashai Kasei, Idemitsu, Showa Denko, Ube, etc)

2003 CIDX Member Companies

(continued)

Marketplaces / Distributors

- **Ashland**
- **Chemcentral**
- **ChemConnect**
- **Elemica**
- **Omnexus**
- **Trade Ranger**

Trading Industry Alliances

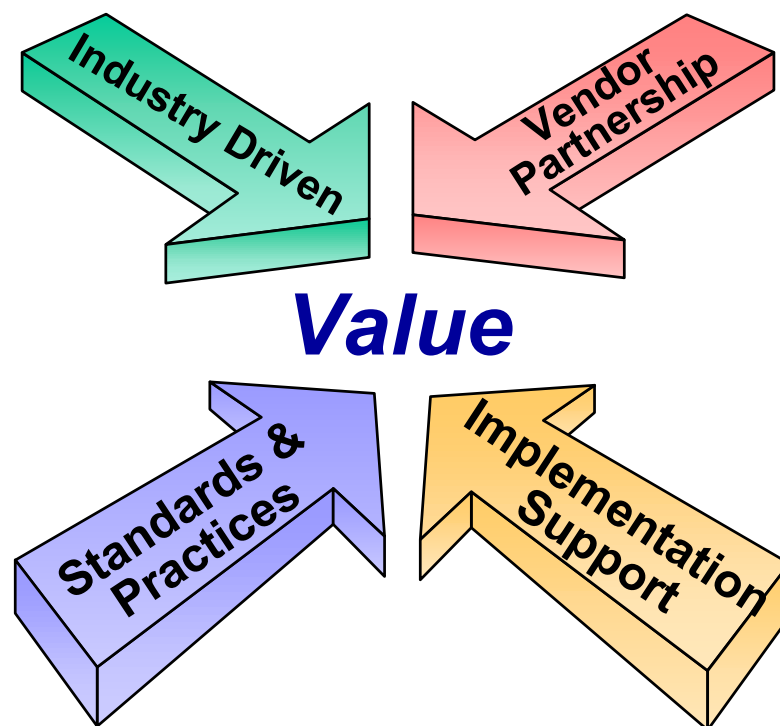
- **JPCA (Japanese Petrochemical Association)**
- **GPA (Gas Processors Assn)**
- **PIDX (Petroleum Industry Data Exchange)**
- **RAPID (Agricultural Inputs eBusiness Standards Organization)**

Service Providers

- **Accenture**
- **Aspen Technology**
- **Bearing Point**
- **Cap Gemini Ernst & Young**
- **EDS**
- **Haht Commerce**
- **IBM**
- **JD Edwards**
- **Menlo Logistics**
- **Microsoft**
- **Rex**
- **SAP**
- **WebMethods**

Strategic Objectives

- **Effective practices, standards & guidance** that reduce barriers and improve performance
- **Broad implementation** within the global chemical industry
- **Encourage development** of improved, cost-effective technologies, services and solutions to support industry targets



Clearly Driven by Industry Needs

Welcome To CIDX™ *Some Key Definitions*

- **CIDX™**: the independent Chemical Industry standards body that will own, support, and manage the Chem eStandards™
- **Chem eStandards™** : Complete body of work including documentation, diagrams, processes, XML transactions and DTDs.

Chem eStandards

Status: Where are we now?

- Published Chem eStandards v2.0 in March 2001 (47 XML transactions):
- Published Chem eStandards v2.0.1 in June 2001:
 - Included roughly 60 enhancements to the v2.0 DTD's
- Published Chem eStandards v2.0.2 in October 2001:
 - Included roughly 150 enhancements to the v2.0.1 DTD's
- Published Chem eStandards v3.0 in July 2002:
 - Included roughly 115 enhancements to the v2.0.2 DTD's
 - Included 7 new messages

Standards Development

Chem eStandards - Transaction Overview

The 52 transactions in the Chem eStandards fall into 8 categories:

Customer/Company Information

Qualification Request
Qualification Response

Catalog and RFQ

Cust. Specific Catalog Update
Product Catalog Update
Request for Quote

Purchase Order

Order Change
Order Create
Order Response
Order Status Request
Order Status Response
Price & Availability Request
Price & Availability Response

Financials

Invoice
Invoice Response
Payment
Payment Detail
Payment Response

Logistics

Carrier Weights
Freight Bill
Load Tender Motor
Load Tender Ocean
Load Tender Rail
Load Tender Response
Shipment Status Request
Shipment Status
Ship Notice
Shipping Instructions

Exchange Interactions

Posting Accept
Posting Accept Response
Posting Cancel
Posting Cancel Response
Posting Change
Posting Create
Posting Response
Posting Status Request
Posting Status Response

Forecasting

Delivery Receipt
Delivery Receipt Response
Demand Forecast
Demand Forecast Response
Demand Plan
Demand Plan Response
Inventory Actual Usage
Inventory Actual Usage Response
Replenishment Proposal Cancel
Replenishment Proposal Change
Replenishment Proposal Request
Replenishment Proposal Response
Supply Plan
Supply Plan Response

Product Information

Certificate of Analysis
Quality Testing Report

2003 Publication Plans

- **Next Release planned for 4Q2003 - probably designated v4.0 with the following changes:**
 - **Change requests received from users (50-100)**
 - **New messages**
 - **XML Schema support (tentative)**
- **Provide implementation guidance for ebMS no sooner than 4Q2003**
- **Migration of Chem eStandards to any cross-industry standards basis not likely before 2004.**

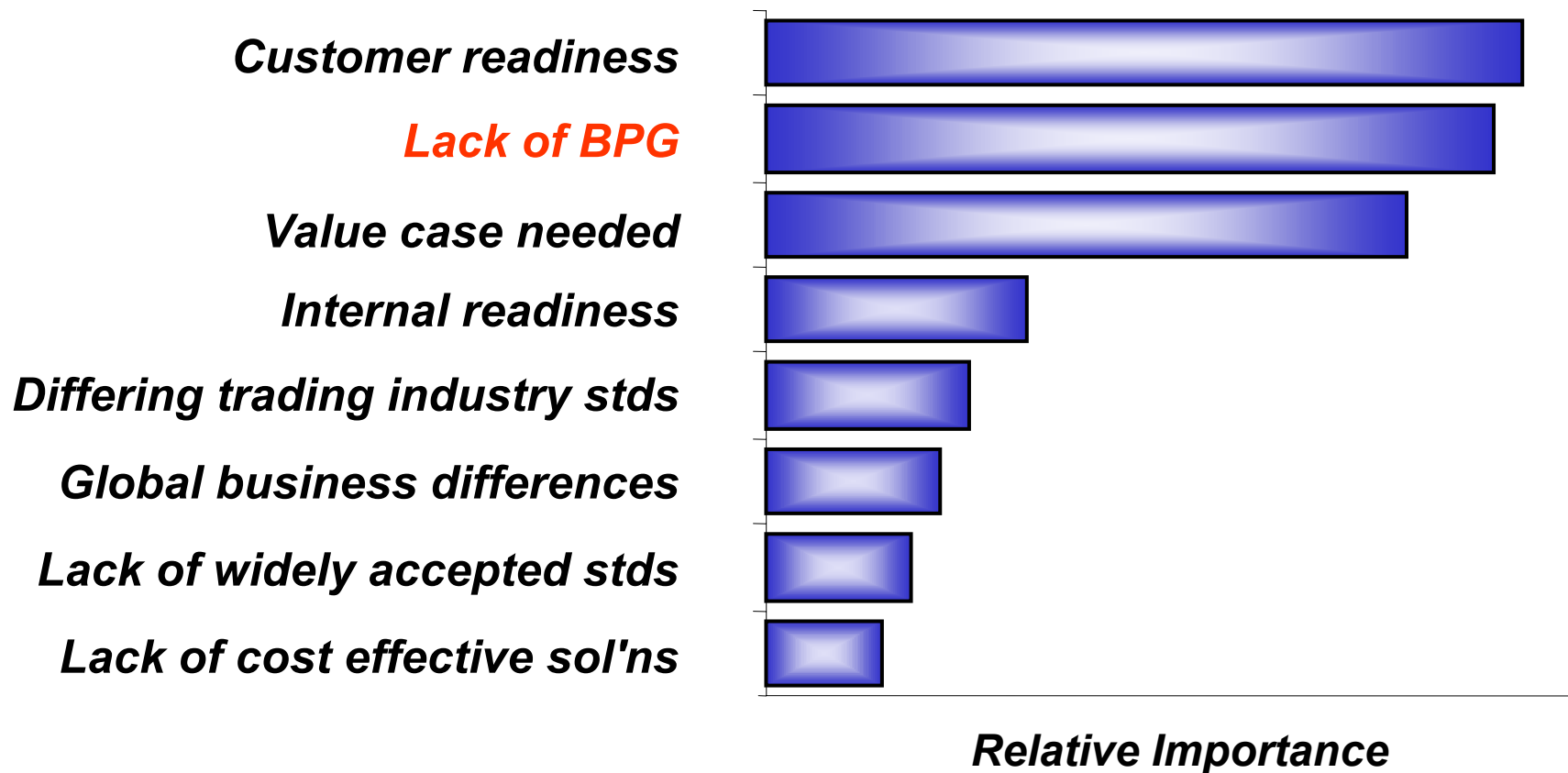
CIDX - Going Forward

**Increased focus on reducing implementation
barriers & integration costs**

Laying groundwork for collaboration

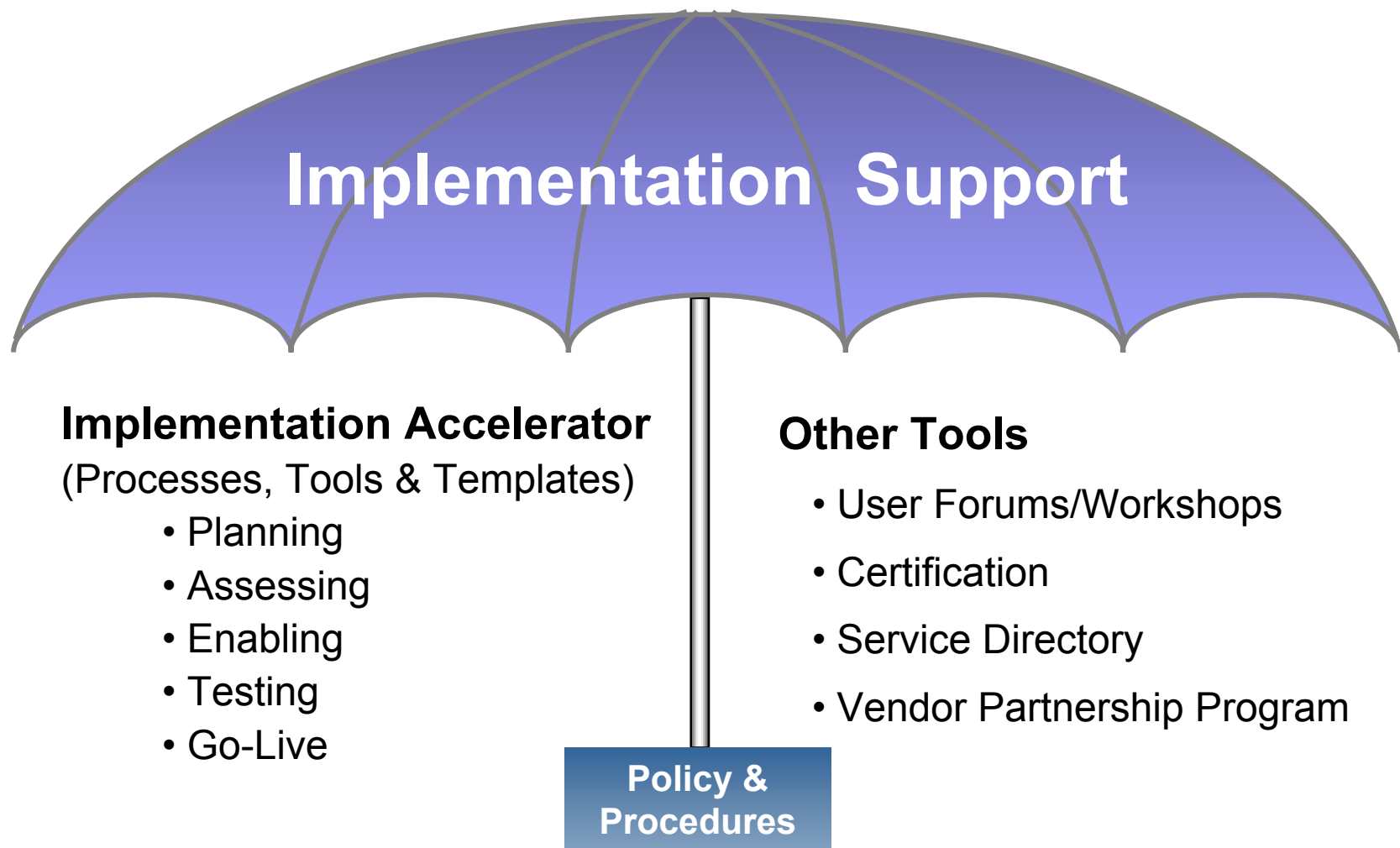
Related areas of standardization

Barriers to Connectivity



Business Process Guideline Projects

- **V1.0 Business Process Guidelines - year-end 2003**
 - Order-to-Cash
 - Collaborative Planning, Forecasting & Replenishment (CPFR)
- **Logistics Framing Project - determine what CIDX needs to do**
- **CIDX/RAPID are using a “use case” approach to documenting business process scenarios**
- **Significant interest in looking at business process “standards”**



Global Operations



North America

- Initiated (1Q01)
- Global participation

European

- Initiated (3Q01)
- Brussels kick-off (1Q02)
- Global meeting (3Q03)
- Forums & workshops

Latin America

- Initiated 2Q02
- Sao Paulo kick-off (6/02)
- Forums & work groups

Japan

- CEDI/CIDX joint project
- BPG (1Q03)
- Forums & workshops (2Q)



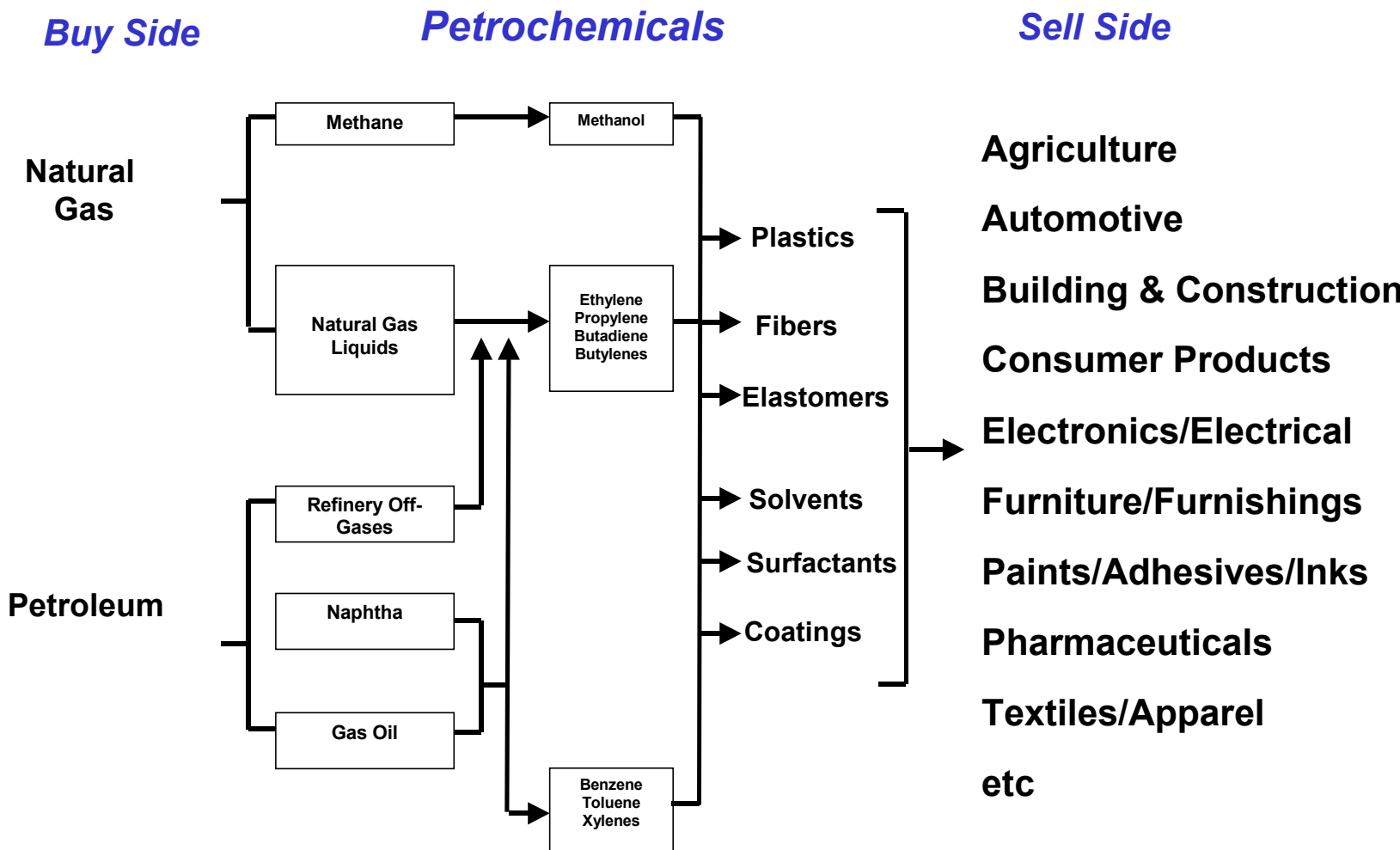
CIDX - Going Forward

Increased focus on reducing implementation barriers & integration costs

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Related areas of standardization

Chemical industry trades...

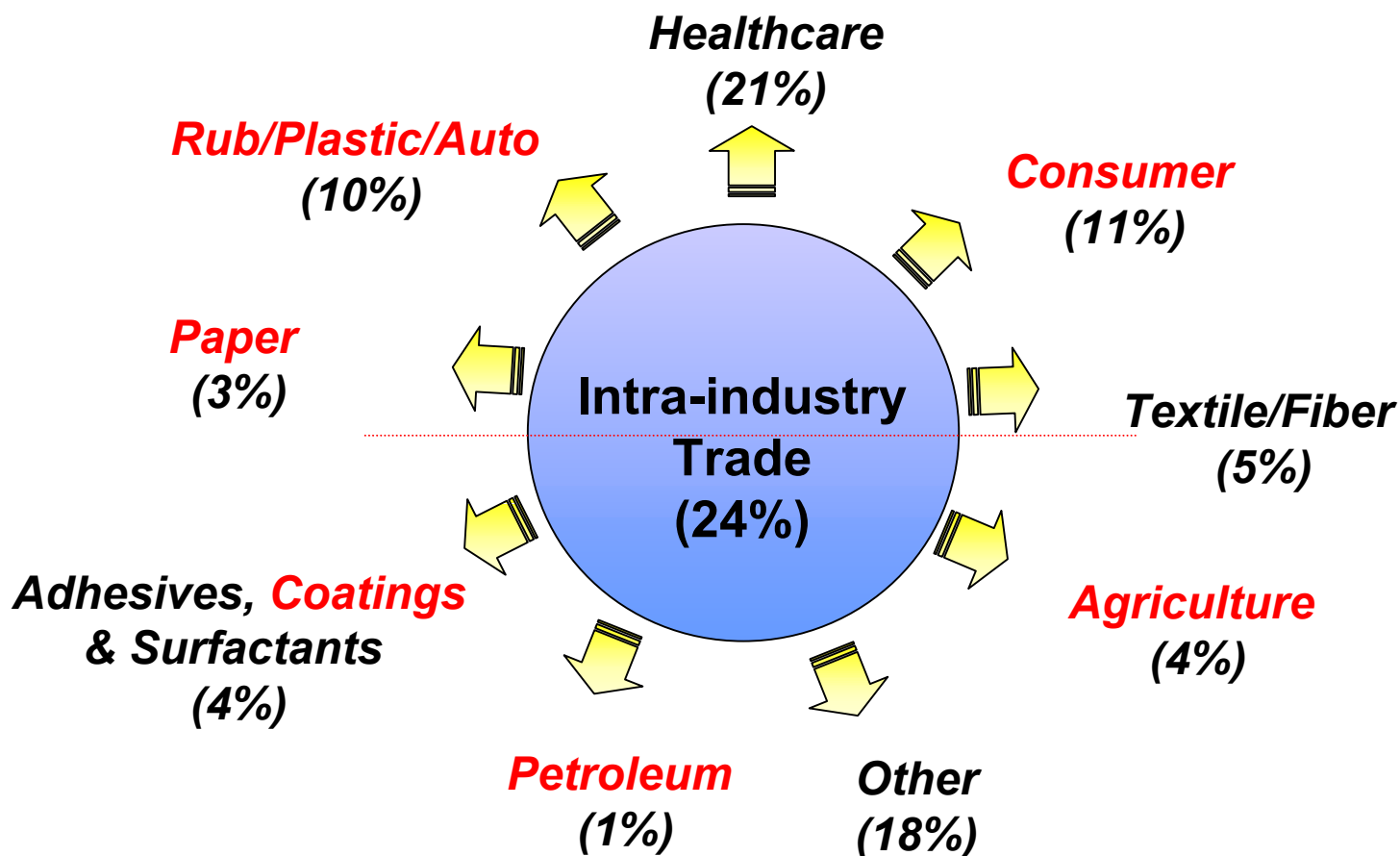


... across a complex supply chain

Convergence & Architecture

Key Trading Industries

% Global Chemical Consumption (1999)



Source: Accenture analysis (7/01)

Convergence & Architecture

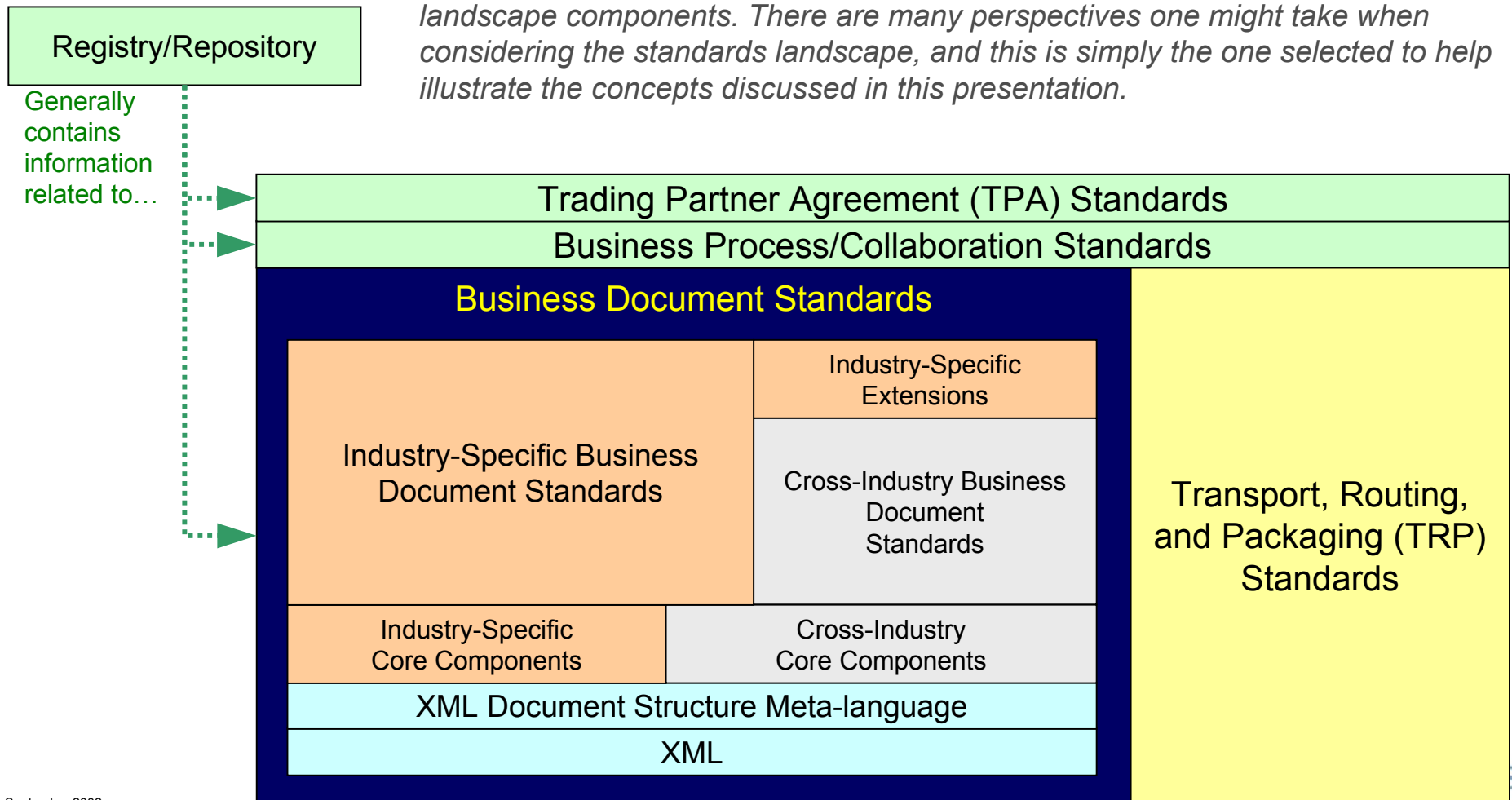
Cross-Industry Std's Convergence

- **Evaluate and recommend cross-industry standards initiative(s) that are most relevant for our combined industries (CIDX/PIDX/RAPID)**
- **Collaborate with other industry verticals (e.g. Paper, Auto) to help converge cross-industry standards to meet our joint industry needs.**

Standards Landscape

Updated 2003-01-28

Note: This diagram reflects the order (from the bottom up) that CIDX, PIDX, and RAPID have approached and are approaching standards development. This diagram was not developed to reflect an architectural view of the various landscape components. There are many perspectives one might take when considering the standards landscape, and this is simply the one selected to help illustrate the concepts discussed in this presentation.



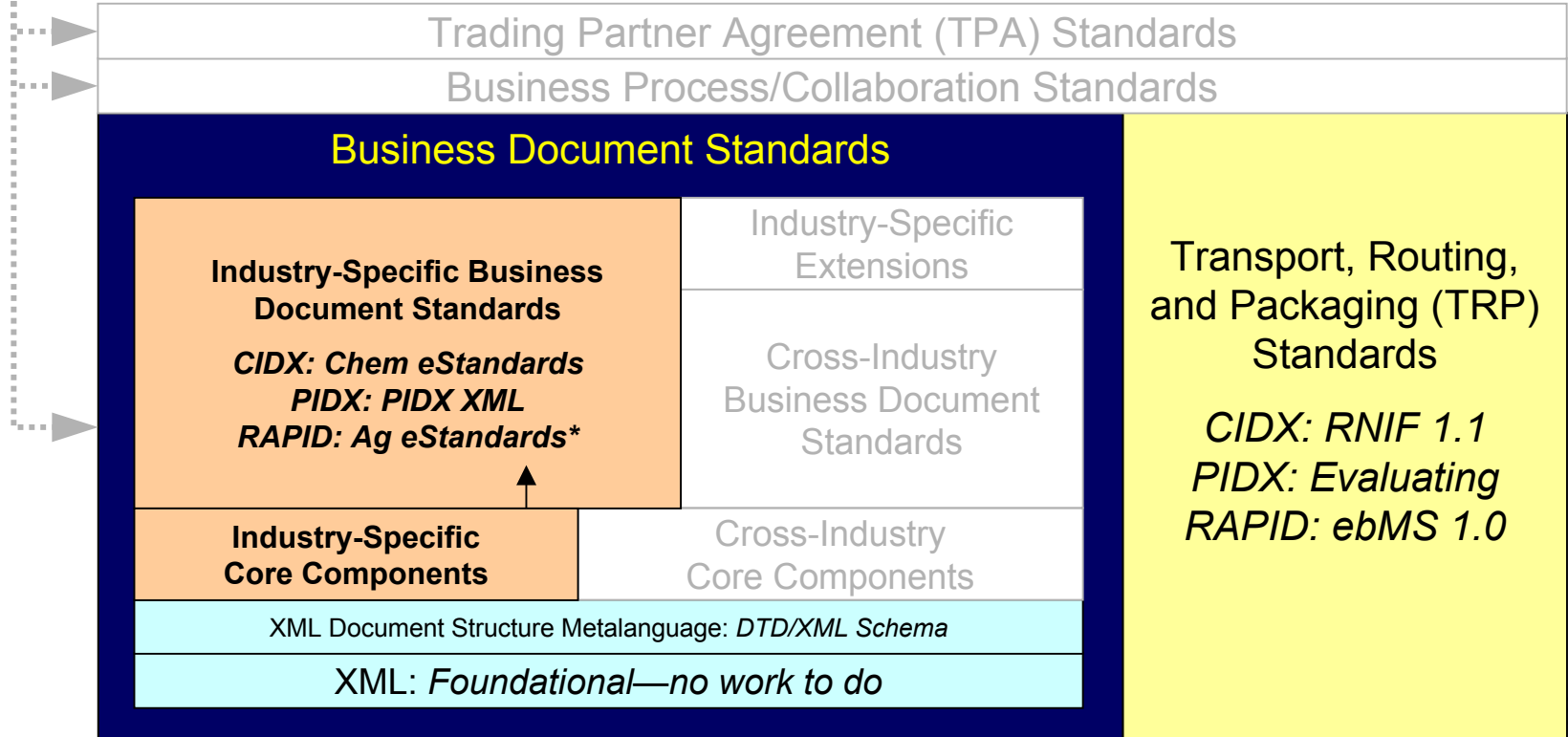
Where RAPID/CIDX/PIDX is Today

Each organization has business document standards and TRP standards in production.

**Note: Ag eStandards business document standards are equivalent to Chem eStandards business document standards.*

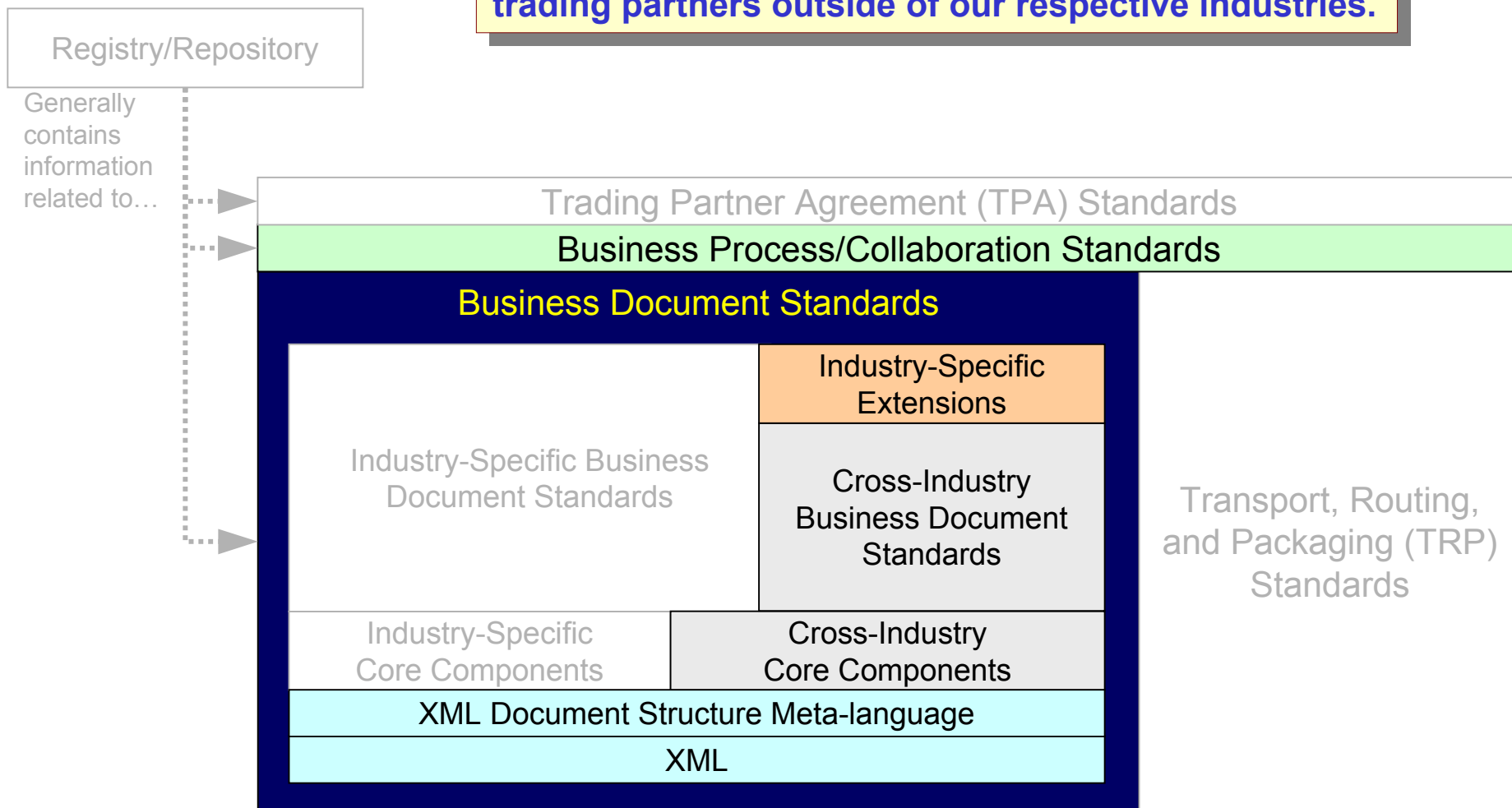
Registry/Repository

Generally contains information related to...



What RAPID/CIDX/PIDX Need to Consider

Cross-industry approaches to business document standards that enable eBusiness connectivity with trading partners outside of our respective industries.



Cross-Industry Standards Convergence Summary

- **XML Schema** format is the way to go - convert in V4.0
- Direction for **envelope & security** not as clear - collaborate with PIDX and RAPID to frame the TRP situation and propose a path forward by year-end.
- **Core component** approach is promising but traction isn't certain - monitor the core component implementation progress and assess implications on CIDX.
- Several **cross-Industry business document standards** are emerging but a clear winner isn't apparent - monitor progress for the rest of the year.
- Big increase in chemical sector interest in documenting business processes - start slowly with use cases and monitor maturity of **business process standards**.
- No urgency for CIDX to address either **trading partner agreement** or **registry/repository** specifications at this time.

Key Observations

- Industry standards are fine for eBusiness within an industry but,
- Cross-Industry eBusiness will thrive only to the extent we have convergence on global standards, because
- We can't map our industry standards to the standards of every industry we do business with
- To CIDX, the key areas for standardization right now are:
 - Transport, Routing & Packaging
 - Business Document Standards
 - Message Design Architecture
 - Core Components
 - Schema Design Rules
 - Business Process Standards

Questions ?